REMARKS

By this amendment claim 1 has been cancelled and new claims 8-10 have been added for examination. Therefore, on entering this amendment, claims 2-10 are all the claims pending in the application.

Claims 1 and 5 are rejected under 35 U.S.C. § 102(b) as being anticipated by Marin (U.S. Patent No. 3,263,488).

Claims 6 and 7 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Martin (U.S. Patent No. 3,263,488) in view of Rhodes (U.S. Patent No. 3,937,061).

Claim 4 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Martin (U.S. Patent No. 3,263,488) in view of DeFord (U.S. Patent No. 4,181,066).

Claims 2 and 3 have been found allowable.

Applicants respectfully traverse the rejections based on the following.

Prior Art Rejections

Rejection of claims 1 and 5 under 35 U.S.C. § 102(b) based on Martin.

Claim 1 has been deleted and claim 5 now depends on the allowable claim 2. Therefore, the above rejections are rendered moot.

Rejection of claims 6 and 7 under 35 U.S.C. § 103(a) based on Martin in view of Rhodes.

Claims 6 and 7 now depend on allowable claim 2. Therefore, the above rejections are rendered moot.

Rejection of claim 4 under 35 U.S.C. § 103(a) based on Martin in view of DeFord.

The Examiner has rejected claim 4 as being obvious over Martin (U.S. Patent No. 3,263,488) in view of Deford (U.S. Patent No. 4,181,066).

Claim 4 has been rejected based on the combined teachings of Martin and DeFord. Martin is cited for its teaching on the use of two gas chromatographs. DeFord teaches passing a sample through **two** chromatographs and comparing the detector outputs. Specifically, in 2:14-20 of DeFord, it is clearly noted that the two chromatographs are nearly identical, except for the carrier fluids. Further, it is noted in 5:32-37 that the carrier fluids in the two chromatographs are eluted in the same length of time and/or the carrier fluids are chosen such that components of interest are completely resolved in both chromatographic analyzers. The comparison results, together with the detector outputs are used for quantitatively determining the individual separated components of the sample. Further, there does not appear to be any difference in the way the computer analyzes the results of the two chromatographs,

The present invention, as recited in claim 4, does not require two gas chromatographs. Instead, **two detectors are arranged at different locations in a single gas chromatograph having a separation device.** Specifically, the first detector is disposed downstream of the separation device and detects the arriving separated sample components. The additional detector is arranged in the path of the separation device to detect components that have not yet been fully separated. Therefore, while Martin and DeFord teach two nearly identical chromatographs, the present invention, as recited in claim 4 requires two detectors in a single chromatograph.

Further, the computational unit that is attached to the second detection device is completely different from the computer that is attached to both the chromatographs in DeFord. For example, the computational unit includes a correction algorithm, which changes the parameters of the computational algorithm. The changes are made as a function of a variance between the result of the evaluation device and the stored additional result of the computational unit in order to reduce the variance.

Operationally, the algorithm in the computational unit, which is connected to the second detector, provides a result that can be regarded as a prediction of the concentrations of the individual sample components. The evaluation device connected to the first detector provides the actual concentration values. The evaluation device thus determines the prediction error. The prediction error is used to adaptively refine the computational algorithm in the computational unit. The computer suggested by DeFord does not include such a computation algorithm or a correction algorithm.

A skilled artisan would not have been able to make the device as recited in claim 4 from the combined teachings of Martin and DeFord. **In fact, by suggesting two separate chromatographs, both Martin and DeFord teach away from the present invention as recited in claim 4.**

Allowable Claims

Claims 2 and 3 have been found allowable if written in independent form. These claims have been amended accordingly to render them allowable.

New Claims

Claims 8-10 have been added for Examination. They depend on claim 4 and recite enhancements analogous to claims 5-7. The reasons discussed above for the allowability of claim 4 are equally valid for these new claims.

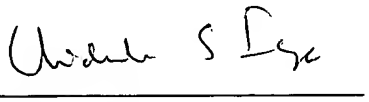
Examiners Reasons for Allowance of Claims 2-3

In the Office Action, the Examiner has provided reasons for the allowance of claims 2 and 3. In the reasons, the Examiner discusses a specific "improvement" in claim 2, that might lead to an incorrect assessment that the claims are in Jepson form. The Applicants respectfully submit that claims 2-3 recite an inventive combination of elements and cannot be construed to be in a Jepson form. The Applicants also note that independent reasons, other than those cited by the Examiner, exist for the allowability of claims 2 and 3.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



Chid S. Iyer
Registration No. 43,355

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE
23373
CUSTOMER NUMBER

Date: September 9, 2004